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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,653	11/26/2003	Edmund A. Flexman	AD6924 US NA	8786

23906 7590 02/25/2008

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EXAMINER	
KRUER, KEVIN R	
ART UNIT	**PAPER NUMBER**
1794	

NOTIFICATION DATE	DELIVERY MODE
02/25/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary	Application No.	Applicant(s)	
	10/723,653	FLEXMAN ET AL.	
	Examiner	Art Unit	
	KEVIN R. KRUER	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *November 2007*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-13,15 and 16* is/are pending in the application.

4a) Of the above claim(s) *15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-13 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/ are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claim 15 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 28, 2006.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5, 7, and 9, are rejected under 35 USC 103(a) as being unpatentable over JP 2002309064A (herein referred to as Nakamura) in view of Kosinski (US 5,237,008).

Nakamura teaches a composition comprising 100pbw polyoxymethylene and 0-100pbw of a polycarbonate resin (abstract). The polycarbonate is taught to have a molecular weight of 10,000-40,000 (0023), which is understood to correlate to a lower melt viscosity than the inventive polyoxymethylene (see melt flow, 0030). Said composition has excellent impact resistance, dimensional stability, and mechanical properties (abstract).

Nakamura does not teach said layer may be laminated to other layers. However, Kosinski teaches it is known in the art to laminate polyoxymethylene layers to other layers. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate the resin composition taught in Nakamura to

another layer. The motivation for doing so would have been that Kosinski teaches it is known to laminate polyoxymethylene layers to other layers for use in desired arts.

With respect to claims 2-4, Kosinski teaches the molecular weight of the polyoxymethylene oxide should be optimized based upon processability and physical properties. Thus, it would have been obvious to the skilled artisan to optimize the molecular weight of the polyoxymethylene taught in Nakamura in order to optimize processability and physical properties.

4. Claims 1, 5, 7, and 9-13 are rejected under 35 USC 103(a) as being unpatentable over JP02027615A (herein referred to as Nakagawa) in view of JP 2002309064A (herein referred to as Nakamura) for reasons of record.

Nakagawa teaches a laminate comprising 2 insulating layers. The first comprises a signal wire, a first grounding conductor, a second grounding conductor, and polyoxymethylene. The second comprises polyoxymethylene. The conductor is formed by lamination with an epoxy glue. Herein the conductor is understood to read on the discontinuous layer of claim 10, and the epoxy adhesive is herein understood to read on the epoxy of claims 12 and 13. The 2 insulating layers are understood to be continuous with one another.

Nakagawa does not teach the polyoxymethylene layer should comprise the claimed composition. However, Nakamura teaches a composition comprising 100pbw polyoxymethylene and 0-100pbw of a polycarbonate resin (abstract). The polycarbonate is taught to have a molecular weight of 10,000-40,000 (0023), which is understood to correlate to a lower melt viscosity than the inventive polyoxymethylene

(see melt flow, 0030). Said composition has excellent impact resistance, dimensional stability, and mechanical properties (abstract). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the resin taught in Nakamura in place of the polyoxymethylene taught in Nakagawa. The motivation for doing so would have been to improve the impact resistance, dimensional stability, and mechanical properties of said laminate.

5. Claim 14 is rejected under 35 USC 103(a) as being unpatentable over (a) JP 2002309064A (herein referred to as Nakamura) in view of Kosinski (US 5,237,008), or (b) JP02027615A (herein referred to as Nakagawa) in view of JP 2002309064A (herein referred to as Nakamura), as applied to claims above, and further in view of Shofner et al (US 3,813,212)

Said references are relied upon as above, but do not teach that the polyoxymethylene layer should be flame treated prior to lamination. However, Shofner teaches it is well known in the art to flame treat a thermoplastic polymer prior to lamination in order to improve adhesion (col 1, lines 8+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to surface treat the polyoxymethylene layer taught in the prior art. The motivation for doing so would have been to improve the interlayer adhesion of the laminate.

6. Claims 1-5, 7, 9 and 16 are rejected under 35 USC 103(a) as being unpatentable over JP 68022669B (herein referred to as Eleo) in view of Kosinski (US 5,237,008).

Eleo teaches a composition comprising 70-99wt% polyoxymethylene and 0-30wt% EVA resin (abstract).

Eleo does not teach said layer may be laminated to other layers. However, Kosinski teaches it is known in the art to laminate polyoxymethylene layers to other layers. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to laminate the resin composition taught in Eleo to another layer. The motivation for doing so would have been that Kosinski teaches it is known to laminate polyoxymethylene layers to other layers for use in desired arts.

With respect to claims 2-4, Eleo teaches the molecular weight of the polyoxymethylene oxide should be optimized based upon processability and physical properties. Thus, it would have been obvious to the skilled artisan to optimize the molecular weight of the polyoxymethylene taught in Eleo in order to optimize processability and physical properties.

Response to Arguments

Applicant's arguments filed November 13, 2007 have been fully considered but are not persuasive.

Applicant argues the references utilized in the rejection teach away from the present invention and teach away from each other. Specifically, applicant argues that Kosinski teaches away from utilizing higher percentages of polymer and thus generally teaches away from its combination with any reference that utilizes greater than 3% polymer in a polyoxymethylene composition. The examiner respectfully disagrees. Kosinski's lamination teaching is not drawn to the specific composition but is a general

teaching of how polyoxymethylene compositions are generally used in the art (col 5, lines 62+). Thus, said teachings are understood to be applicable to any polyoxymethylene composition. Applicant argues said compositions are different and the teachings of Kosinski cannot be extended to the composition of Nakamura. However, said argument is not persuasive because Kosinski's teaching with regard to lamination is broad and understood to be generically applicable to any polyoxymethylene composition.

Applicant argues the Kosinski further teaches away because it teaches excessive amounts of polymer may result in loss of physical properties. Said teaching is noted but is not persuasive because the examiner has not relied upon Kosinski for the claimed amount of polymer. Furthermore, Nakamura clearly teaches compositions comprising the claimed amount of polymer are useful.

Applicant argues neither reference teaches an improvement in adhesion properties. Said argument is noted but is not persuasive because the prior art need not motivate the claimed invention for the same reason as applicant. Furthermore, applicant has not demonstrated unexpected results with respect to adhesion.

With regards to Nakagawa in view of Nakamura, applicant argues the combination would lead to an increase in the stiffness of the polyoxymethylene composition which is contrary to the flexibility requirement of Nakagawa. Said argument has been considered but is not persuasive because counsel's argument cannot take the place of evidence. Applicant fails to show the proposed combination would render the invention of Nakagawa useless.

The amendments to the specification have not been entered because they comprise new matter. The new information in the tables is not supported in the original disclosure.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin R. Kruer
Patent Examiner-Art Unit 1794